WHAT IS CLAIMED IS:

1.   A compound that binds to a cysteine residue in the RNA-dependent RNA polymerase (RdRp) protein of a virus forming a covalent bond.

2.   A compound of Claim 1, wherein said RdRp protein is NS5B.

3.   A compound of Claim 1, wherein said virus is hepatitis C virus (HCV).

4.   A compound of Claim 1, wherein said cysteine residue corresponds to cysteine 366 in HCV NS5B.

5.   A compound of Claim 1, wherein said RdRp is NS5B and said virus is HCV.

6.   A compound of Claim 5, wherein said covalent bond is irreversible under physiological conditions.

7.   A compound of claim 5, wherein said covalent bond is reversible under physiological conditions.

8.   A compound of claim 1, wherein said covalent bond results from a reaction selected from the group consisting of a Michael addition of said cysteine residue to an activated double or triple bond in said compound, an aromatic or aliphatic nucleophilic substitution reaction of said cysteine residue with an electrophilic center in said compound, a thioester forming reaction between said cysteine residue and a carboxylic acid or carboxylic acid derivative in said compound, a disulfide forming reaction between said cysteine residue and a sulfur-containing group in said compound, and a hemi-thioketal forming reaction between said cysteine residue and an activated or unactivated carbonyl group in said compound.

9.   A compound useful for the covalent modification of a viral RNA-dependent RNA polymerase (RdRp) protein, said compound having the formula (I):

$$X^1-L^1-X^2-A-L^2-Ar^1$$

wherein

5   A is a electrophilic group that reacts with a cysteine residue of said RdRp

6 protein;

7   Ar^1 is a member selected from the group consisting of substituted or

8 unsubstituted aryl and substituted or unsubstituted heteroaryl;

9   X^1 is a member selected from the group consisting of -H, substituted or

10 unsubstituted alkyl, substituted or unsubstituted aryl, substituted or unsubstituted

11 heteroaryl, -CN, -CO$_2$H, -SO$_3$H, -C(O)NHOH, -NH$_2$, -OH, -NH(lower alkyl), -O(lower

12 alkyl), -N(lower alkyl)$_2$, and —C(O)-NH(3-tetrazolyl);

13   L^1 is a divalent linking group selected from the group consisting of

14 -CH$_2$CH$_2$-, -CH=CH-, -C≡C-, -O-, -S(O)$_n$-, -N(R$_a$)-, -C(O)-, -C(O)O-, -SO$_2$N(R$_a$)-,

15 -CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-, -N(R$_a$)N(R$_b$)-, -N(R$_a$)SO$_2$N(R$_b$)-, -N(R$_a$)SO$_2$-, -N(R$_a$)-O-,

16 =N-O-, lower alkylene, -O-lower alkylene, -S(O)$_n$-lower alkylene, N(R$_a$)-lower alkylene,

17 -SO$_2$N(R$_a$)-lower alkylene, lower alkylene-SO$_2$N(R$_a$)-, -CON(R$_a$)-lower alkylene, lower

18 alkylene-CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-lower alkylene, lower alkylene-N(R$_a$)N(R$_b$)-,

19 -N(R$_a$)SO$_2$N(R$_b$)-lower alkylene, -N(R$_a$)-O-lower alkylene, lower alkylene-N(R$_a$)-O-,

20 =N-O-lower alkylene, lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower

21 heteroalkylene, N(R$_a$)-lower heteroalkylene, -SO$_2$N(R$_a$)-lower heteroalkylene, lower

22 heteroalkylene-SO$_2$N(R$_a$)-, -CON(R$_a$)-lower heteroalkylene, lower

23 heteroalkylene-CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-lower heteroalkylene, lower

24 heteroalkylene-N(R$_a$)N(R$_b$)-, -N(R$_a$)SO$_2$N(R$_b$)-lower heteroalkylene, -N(R$_a$)-O-lower

25 heteroalkylene, lower heteroalkylene-N(R$_a$)-O-, =N-O-lower alkylene, aryl and

26 heteroaryl;

27   X^2 is a member selected from the group consisting of substituted or

28 unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted

29 cycloalkyl, and substituted or unsubstituted heterocycloalkyl;

30   L^2 is a divalent linking group selected from the group consisting of

31 -CH$_2$CH$_2$-, -(C(R$_c$)=C(R$_d$))$_m$-, -O-, -S(O)$_n$-, -N(R$_e$)-, -C(O)-, -C(O)O-, -SO$_2$N(R$_e$)-,

32 -CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-, -N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-, -N(R$_e$)-O-, =N-O-, lower

33 alkylene, perfluoro lower alkylene, polyfluoro lower alkylene, -O-lower alkylene,

34 -S(O)$_n$-lower alkylene, N(R$_e$)-lower alkylene, -SO$_2$N(R$_e$)-lower alkylene, lower

35 alkylene-SO$_2$N(R$_e$)-, -CON(R$_e$)-lower alkylene, lower alkylene-CON(R$_e$)-,

36 -N(R$_e$)CON(R$_f$)-lower alkylene, lower alkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

37 alkylene, -N(R$_e$)-O-lower alkylene, lower alkylene-N(R$_e$)-O-, =N-O-lower alkylene,

38   lower heteroalkylene, -O-lower heteroalkylene, $-S(O)_n$-lower heteroalkylene, $N(R_e)$-lower

39   heteroalkylene, $-SO_2N(R_e)$-lower heteroalkylene, lower heteroalkylene-$SO_2N(R_e)$-,

40      $-CON(R_e)$-lower heteroalkylene, lower heteroalkylene-$CON(R_e)$-, $-N(R_e)CON(R_f)$-lower

41   heteroalkylene, lower heteroalkylene-$N(R_e)N(R_f)$-, $-N(R_e)SO_2N(R_f)$-lower

42   heteroalkylene, $-N(R_e)$-O-lower heteroalkylene, lower heteroalkylene-$N(R_e)$-O-,

43   =N-O-lower alkylene, aryl and heteroaryl, wherein R_a, R_b, R_c, R_d, R_e and R_f are each

44   members independently selected from the group consisting of H, lower alkyl, lower

45   heteroalkyl, -C(O)-lower alkyl, -C(O)-lower heteroalkyl, $-S(O)_2$-lower alkyl, and –

46      $S(O)_2$-lower heteroalkyl;

47   the subscript n is an integer of from 0 to 2;

48   the subscript m is an integer of from 0 to 3;

49   the bond between X^2 and A can be a single, double or triple bond,

50   depending on the nature of X^2 and A; and

51   wherein when L^1 and L^2 may be linked together *via* a single bond, -O-, -S-

52   or amide group to form a new 5 to 7 membered ring;

53   with the proviso that when A is an sp^2-hybridized carbon atom and X^2 is substituted or

54   unsubstituted rhodanine, L^1 is not $-CH_2-CH_2-$, -CH=CH-, $-C\equiv C-$ or aryl.

1   **10.**   A compound in accordance with claim 9, wherein

2   X^2 is selected from the group consisting of a 5 to 7 membered cycloalkyl

3   ring, a 5 to 7 membered heterocycloalkyl ring containing from 1 to 3 heteroatoms, an aryl
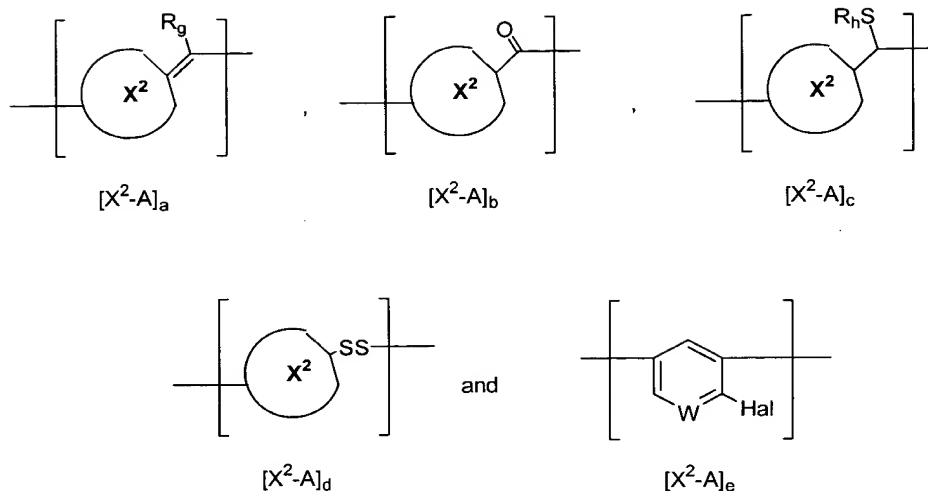
4   group and a heteroaryl group;

5   A is selected from the group consisting of an sp^2-hybridized carbon atom

6   and an sp^3-hybridized carbon atom;

7   L^2 is a single bond; and

8   X^2 and A are joined *via* a single or double bond.

1   **11.**   A compound in accordance with claim 10, wherein

2   X^2-A- is selected from the group consisting of:

41

$[X^2\text{-}A]_a$, $[X^2\text{-}A]_b$, $[X^2\text{-}A]_c$

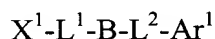$[X^2\text{-}A]_d$ and $[X^2\text{-}A]_e$

3

4   wherein R_g is selected from the group consisting of H, lower alkyl, lower

5 alkoxy and F; R_h is selected from the group consisting of H, $-S(O)_n$-lower alkyl, $-S(O)_n$-

6 lower heteroalkyl, $-S(O)_n$-aryl and $-S(O)_n$-heteroaryl;

7   W is CH or N; Hal is a halogen atom; and

8   X^2 is a substituted or unsubstituted member selected from the group

9 consisting of a 5-6 membered cycloalkyl, 5-6 membered heterocycloalkyl containing

10 from 1 to 3 heteroatoms, heteroaryl containing from 1 to 3 heteroatoms and aryl.

1   **12.**   A compound having the formula (**II**):

2      $X^1\text{-}L^1\text{-}B\text{-}L^2\text{-}Ar^1$

3 wherein

4   Ar^1 is a member selected from the group consisting of substituted or

5 unsubstituted aryl and substituted or unsubstituted heteroaryl;

6   X^1 is a member selected from the group consisting of -H, substituted or

7 unsubstituted alkyl, substituted or unsubstituted aryl, substituted or unsubstituted

8 heteroaryl, -CN, $-CO_2H$, $-SO_3H$, -C(O)NHOH, $-NH_2$, -OH, -NH(lower alkyl), -O(lower

9 alkyl), -N(lower alkyl)$_2$, and $-C(O)$-NH(3-tetrazolyl);

10   L^1 is a divalent linking group selected from the group consisting of

11 $-CH_2CH_2-$, -CH=CH-, -C≡C-, -O-, $-S(O)_n-$, $-N(R_a)-$, -C(O)-, -C(O)O-, $-SO_2N(R_a)-$,

12 $-CON(R_a)-$, $-N(R_a)CON(R_b)-$, $-N(R_a)N(R_b)-$, $-N(R_a)SO_2N(R_b)-$, $-N(R_a)SO_2-$, $-N(R_a)-O-$,

13 =N-O-, lower alkylene, -O-lower alkylene, $-S(O)_n$-lower alkylene, $N(R_a)$-lower alkylene,

14 $-SO_2N(R_a)$-lower alkylene, lower alkylene-$SO_2N(R_a)-$, $-CON(R_a)$-lower alkylene, lower

15 alkylene-$CON(R_a)-$, $-N(R_a)CON(R_b)$-lower alkylene, lower alkylene-$N(R_a)N(R_b)-$,

16 $-N(R_a)SO_2N(R_b)$-lower alkylene, $-N(R_a)$-O-lower alkylene, lower alkylene-$N(R_a)$-O-,

42

17   =N-O-lower alkylene, lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower

18   heteroalkylene, N(R$_a$)-lower heteroalkylene, -SO$_2$N(R$_a$)-lower heteroalkylene, lower

19   heteroalkylene-SO$_2$N(R$_a$)-, -CON(R$_a$)-lower heteroalkylene, lower

20   heteroalkylene-CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-lower heteroalkylene, lower

21   heteroalkylene-N(R$_a$)N(R$_b$)-, -N(R$_a$)SO$_2$N(R$_b$)-lower heteroalkylene, -N(R$_a$)-O-lower

22   heteroalkylene, lower heteroalkylene-N(R$_a$)-O-, =N-O-lower alkylene, aryl and

23   heteroaryl;

24   L^2 is a divalent linking group selected from the group consisting of

25   -CH$_2$CH$_2$-, -(C(R$_c$)=C(R$_d$))$_m$-, -O-, -S(O)$_n$-, -N(R$_e$)-, -C(O)-, -C(O)O-, -SO$_2$N(R$_e$)-,

26   -CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-, -N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-, -N(R$_e$)-O-, =N-O-, lower

27   alkylene, perfluoro lower alkylene, polyfluoro lower alkylene, -O-lower alkylene,

28   -S(O)$_n$-lower alkylene, N(R$_e$)-lower alkylene, -SO$_2$N(R$_e$)-lower alkylene, lower

29   alkylene-SO$_2$N(R$_e$)-, -CON(R$_e$)-lower alkylene, lower alkylene-CON(R$_e$)-,

30   -N(R$_e$)CON(R$_f$)-lower alkylene, lower alkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

31   alkylene, -N(R$_e$)-O-lower alkylene, lower alkylene-N(R$_e$)-O-, =N-O-lower alkylene,

32   lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower heteroalkylene, N(R$_e$)-lower

33   heteroalkylene, -SO$_2$N(R$_e$)-lower heteroalkylene, lower heteroalkylene-SO$_2$N(R$_e$)-,

34   -CON(R$_e$)-lower heteroalkylene, lower heteroalkylene-CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-lower

35   heteroalkylene, lower heteroalkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

36   heteroalkylene, -N(R$_e$)-O-lower heteroalkylene, lower heteroalkylene-N(R$_e$)-O-,

37   =N-O-lower alkylene, aryl and heteroaryl, wherein R$_a$, R$_b$, R$_c$, R$_d$, R$_e$ and R$_f$ are each

38   members independently selected from the group consisting of H, lower alkyl, lower

39   heteroalkyl, -C(O)-lower alkyl, -C(O)-lower heteroalkyl, –S(O)$_2$-lower alkyl, and –

40   S(O)$_2$-lower heteroalkyl;

41   the subscript n is an integer of from 0 to 2;

42   the subscript m is an integer of from 0 to 3;

43   B is selected from the group consisting of:

B_a , B_b , B_c

B_c B_e and B_f ;

44
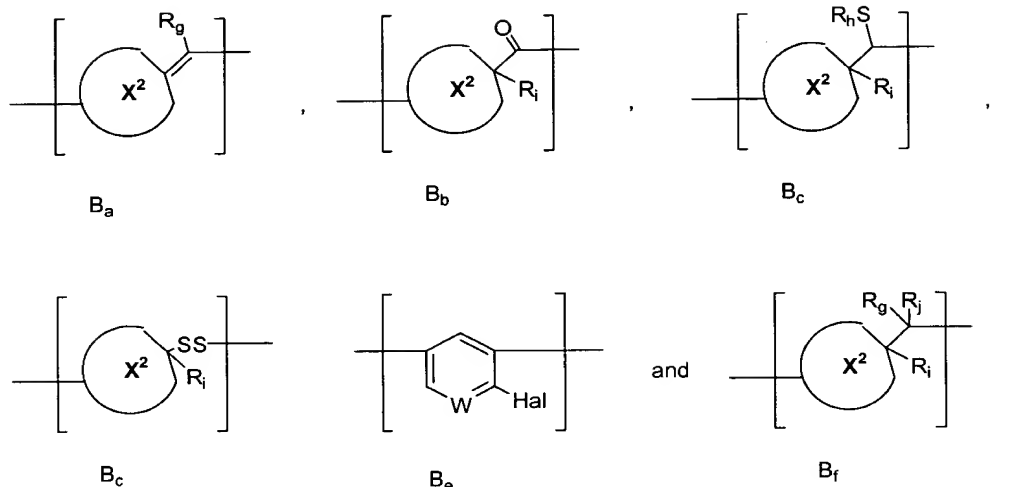
45   wherein X^2 is a substituted or unsubstituted member

46 selected from the group consisting of a 5-6 membered cycloalkyl, 5-6

47 membered heterocycloalkyl containing from 1 to 3 heteroatoms, heteroaryl

48 containing from 1 to 3 heteroatoms and aryl;

49   W is CH or N;

50   R_g is selected from the group consisting of H, lower alkyl,

51 lower alkoxy and F;

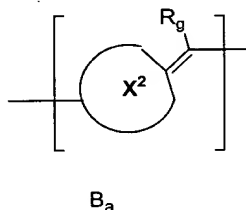52 R_h is selected from the group consisting of H, $-S(O)_n$-lower

53 alkyl, $-S(O)_n$-lower heteroalkyl, $-S(O)_n$-aryl and $-S(O)_n$-heteroaryl;

54   R_i is selected from the group consisting of H, lower alkyl,

55 lower heteroalkyl, or a bond that links the atom bearing R_i with another

56 atom in the X^2 ring;

57   R_j is selected from the group consisting of H, lower alkyl, F

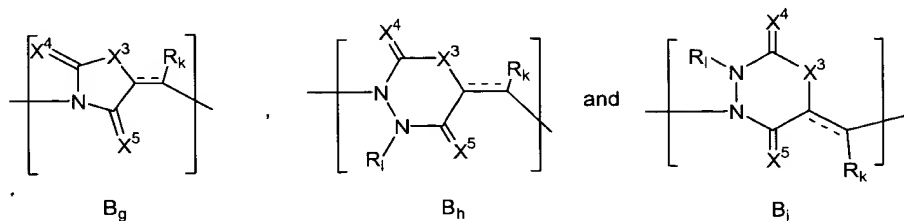58 and lower alkoxy; and

59   Hal is a halogen atom;

60   wherein when L^1 and L^2 may be linked together *via* a single bond, -O-, -S-

61 or amide group to form a new 5 to 7 membered ring;

62 with the proviso that when B is

B_a

63

64

44

65   and X^2 is rhodanine, L^1 is not $-CH_2-CH_2-$, $-CH=CH-$, $-C{\equiv}C-$ or aryl.

1   **13.**   A compound in accordance with claim **12**, wherein B is selected

2   from the group consisting of:

           B_g B_h B_i

3

4   wherein

5   R_k is selected from the group consisting of H, lower alkyl, lower

6   heteroalkyl and F;
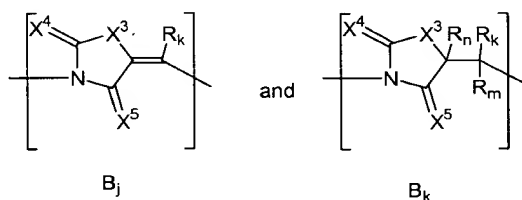
7   R_l is H or lower alkyl;

8   X^3 is selected from the group consisting of O, S, CH_2, CH(lower alkyl),

9   C(lower alkyl)$_2$, NH and N(lower alkyl);

10   X^4 is selected from the group consisting of O, S, NH and N(lower alkyl),

11   or X^4 and the carbon atom to which it is attached represents an sp^3-hybridized carbon

12   having two substituents independently selected from the group consisting of H, lower

13   alkyl and lower heteroalkyl;

14   X^5 is selected from the group consisting of O, S, NH and N(lower alkyl),

15   or X^5 and the carbon atom to which it is attached represents an sp^3-hybridized carbon

16   having two substituents independently selected from the group consisting of H, lower

17   alkyl, lower alkoxy, aryloxy, lower thioalkoxy and arylthioxy; and

18   - - - represents either a single or double bond, with the proviso that when a

19   single bond is intended, the ring atom bearing said single bond bears an additional

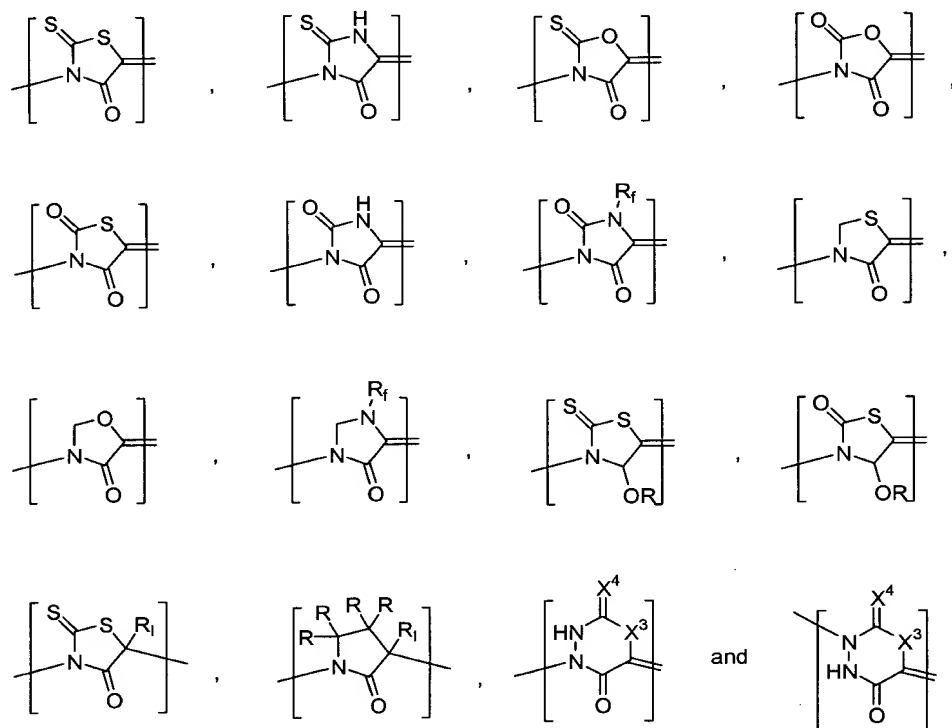20   substituent selected from the group consisting of H, lower alkyl, lower alkoxy and F.

1   **14.**   A compound of claim **13**, wherein B is selected from the group

2   consisting of:

           B_j B_k

3

4   wherein

5   R_k, R_m and R_n are each independently selected from the group consisting

6   of H, F, lower alkyl and lower alkoxy;

7   X^3 is selected from the group consisting of O, S, C(lower alkyl)$_2$, NH and

8   N(lower alkyl);

9   X^4 is selected from the group consisting of O and S, or X^4 and the carbon

10   atom to which it is attached represents an sp^3-hybridized carbon having two substituents

11   independently selected from the group consisting of H, lower alkyl and lower heteroalkyl;

12   X^5 is selected from the group consisting of O and S, or X^5 and the carbon

13   atom to which it is attached represents an sp^3-hybridized carbon having two substituents

14   independently selected from the group consisting of H, lower alkoxy and lower

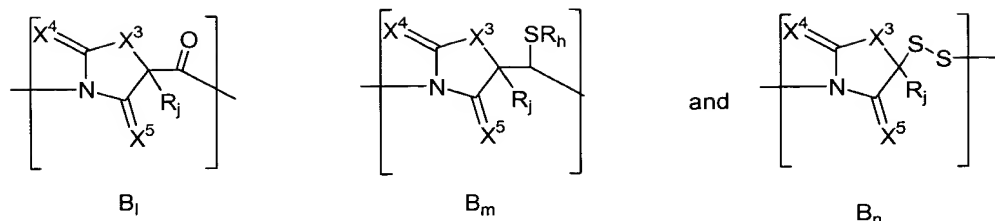15   thioalkoxy.

1   **15.**   A compound of claim **14**, wherein B is selected from the group

2   consisting of:

3

4   wherein any unlabeled R groups are independently selected from the group consisting of

5   H, lower alkyl, lower alkoxy and F.

1   **16.**   A compound of claim **12** wherein B is selected from the group
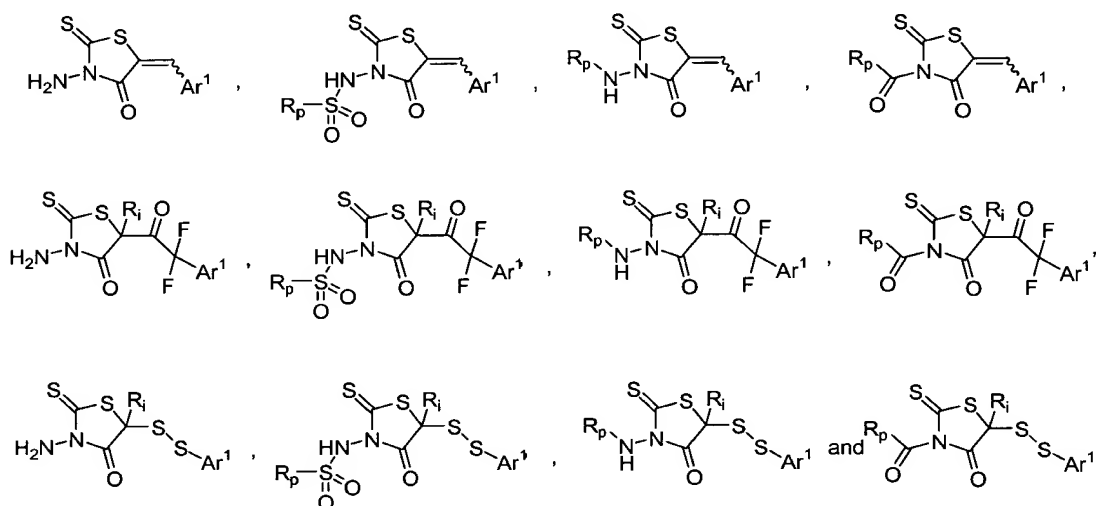
2   consisting of:

B_l B_m and B_n

3

1   **17.**   A compound of claim **12**, wherein L^1 is selected from the group

2 consisting of $-N(R_a)-$, $-N(R_a)$-alkylene, alkylene-SO_2-$N(R_a)$-, $-SO_2$-$N(R_a)$- and

3 $-N(R_a)SO_2$-; and X^1 is selected from the group consisting of H, aryl and alkyl.

1   **18.**   A compound of claim **12**, wherein Ar^1 is selected from the group

2 consisting of substituted or unsubstituted biphenyl group, substituted or unsubstituted

3 bicyclic ring, substituted or unsubstituted phenyl group and substituted or unsubstituted

4 pyridyl.

1   **19.**   A compound of claim **17**, said compound having the formula:

2

3 wherein R_p is selected from the group consisting of substituted or unsubstituted alkyl,

4 substituted or unsubstituted aryl and substituted or unsubstituted heteroaryl.

1   **20.**   A compound of Claim **12**, said compound having the formula (**III**):

2

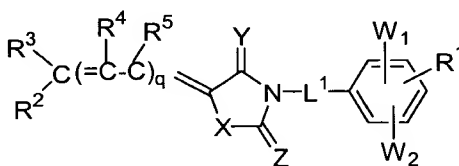3 wherein

4   the subscript q is an integer of from 0 to 4;

47
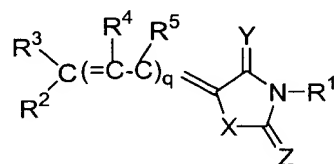
5   R^1 is hydrogen or a substituent having the formula $-L^1-COOH$;

6   X is a moiety selected from $-S-$, $-O-$, and $-N(R_o)-$, wherein R_o is H or

7 lower alkyl;

8   R^2 is a substituted or unsubstituted aryl(C_1-C_8)alkyl, a substituted or

9 unsubstituted aryl(C_1-C_8)alkenyl, a substituted or unsubstituted aryl(C_1-C_8)alkynyl, a

10 substituted or unsubstituted alicyclic group having from 5-8 carbon atoms, or a group

11 having the formula $(R_{2a})_r-(L)_s-R_{2b}-$, wherein R_{2a} and R_{2b} can be the same or different and

12 represent a substituted or unsubstituted heterocyclic group or a substituted or

13 unsubstituted phenyl group, R_{2a} can also represent a substituted or unsubstituted

14 polycyclic group, and L represents a divalent linking group selected from methylene,

15 ethylene, propylene, $-CH=CH-$, $-C\equiv C-$, $-C(O)-$, $-O-$, $-S-$, $-S(O)-$, $-S(O)_2-$, or $-N(R_{2c})-$,

16 wherein R_{2c} is selected from H or lower alkyl, and the subscripts r and s are each

17 independently 0 or 1;

18   R^3 is selected from the group consisting of H, substituted or unsubstituted

19 (C_1-C_8)alkyl, substituted and unsubstituted aryl or substituted and unsubstituted

20 heteroaryl;

21   Y represents O or S; and

22   Z represents O, S or $N(R_{2d})$, wherein R_{2d} is H or lower alkyl, or R_{2d} and R^1

23 may be joined to form an imidazole or benzimidazole group;

24 with the proviso that when R^1 is hydrogen, R^3 is not substituted furan.

1   **21.**   A compound of Claim **12**, said compound having the formula (**V**):

2

3 wherein

4   R^1 is H, $-OH$, $-COOR_u$, $-CONR_vR_w$, $-SO_2NR_xR_y$ wherein R_u, R_v, R_w, R_x

5 and R_y are H or lower alkyl, or R^1 is a mono-heterocyclic group selected from furan,

6 thiophene, pyridine, pyrimidine, pyridazine, 1,3-oxathiolane, tetrazole, oxadiazole,

7 oxazole, triazole, imidazoline, imidazole, thiazole, thiadiazole, pyrrole, piperidine,

8 morpholine, triazine and pyrazole; and

9   W_1 and W_2 are independently selected from H, (C_1-C_8)alkyl, $(C_1-$

10 $C_8)$alkenyl, (C_1-C_8)alkynyl, halogen, nitro, hydroxy, perfluoroalkyl, difluoromethyl, $(C_1-$

11   C_8)alkoxy, phenoxy, phenyl(C_1-C_8)alkoxy, (C_1-C_8)acyl, (C_1-C_8)acyloxy, cyano,

12   carbalkoxy, thio, (C_1-C_8)alkylthio, (C_1-C_8)alkylsulfinyl, (C_1-C_8)alkylsulfonyl, amino, (C_1-

13   C_8)alkylamino, di(C_1-C_8)alkylamino, sulfonamido, carboxamido and (C_1-

14   C_8)alkanoylamino.

1   **22.**   A compound of Claim **12**, said compound having a formula

2   selected from the group consisting of

3

4   wherein

5   R^2 is a substituted or unsubstituted mono- or bi-heterocyclic group, a

6   substituted or unsubstituted polycyclic ring, a substituted or unsubstituted alicyclic group

7   having 5-8 carbon atoms, a substituted or unsubstituted phenyl group, a substituted or

8   unsubstituted biphenyl group, a substituted or unsubstituted phenylether group, a

9   substituted or unsubstituted cinnamenyl group, or a substituted or unsubstituted stilbenyl

10   group.

1   **23.**   The compound of Claim **22**, wherein said compound is selected

2   from the group consisting of
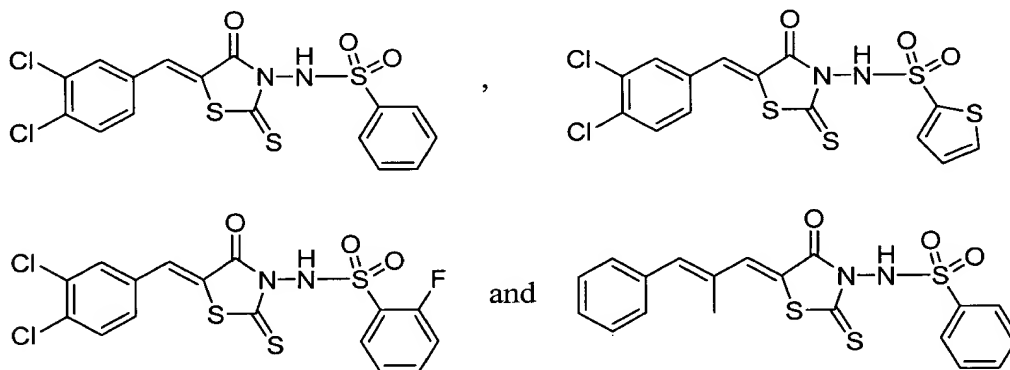
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1   24.   A compound having the formula (**VIIa**):

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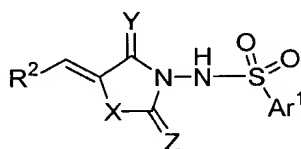
3   wherein

4   Ar^1 is selected from the group consisting of substituted or unsubstituted

5   aryl and substituted or unsubstituted heteroaryl;

6   X is selected from $-S-$, $-O-$ and $-N(R_o)-$, wherein R_o is H or lower alkyl;

7   Y is O or S; and

8   Z is O, S or $N(R_{2d})$, wherein R_{2d} is H or lower alkyl, or R_{2d} and R^1 may be

9   joined to form an imidazole or benzimidazole group; and

10   R^2 is a substituted or unsubstituted mono- or bi-heterocyclic group, a

11   substituted or unsubstituted polycyclic ring, a substituted or unsubstituted alicyclic group

12   having 5-8 carbon atoms, a substituted or unsubstituted phenyl group, a substituted or

13   unsubstituted biphenyl group, a substituted or unsubstituted phenylether group, a

14   substituted or unsubstituted cinnamenyl group, or a substituted or unsubstituted stilbenyl

15   group.

1   **25.**   The compound of Claim **24**, wherein said compound is selected

2   from the group consisting of

3

4

1   **26.**   A compound useful for the covalent modification of a viral RNA-

2   dependent RNA polymerase (RdRp) protein, said compound having the formula:

3                      $X^1-L^1-X^2-A-L^2-Ar^1$
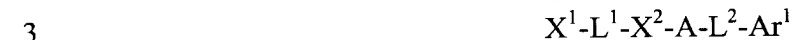
4   wherein

5   A is a electrophilic group that reacts with a cysteine residue of said viral

6   RNA-dependent RNA polymerase protein;

7   Ar^1 is a member selected from the group consisting of substituted or

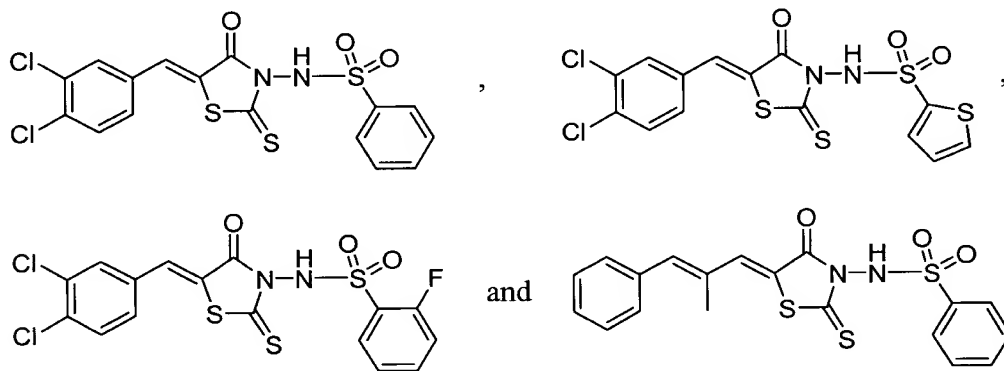8   unsubstituted aryl and substituted or unsubstituted heteroaryl;

50

9   X^1 is a member selected from the group consisting of -H, substituted or

10   unsubstituted alkyl, substituted or unsubstituted aryl, substituted or unsubstituted

11   heteroaryl, -CN, -CO$_2$H, -SO$_3$H, -C(O)NHOH, -NH$_2$, -OH, -NH(lower alkyl), -O(lower

12   alkyl), -N(lower alkyl)$_2$, and –C(O)-NH(3-tetrazolyl);

13   L^1 is a divalent linking group selected from the group consisting of -O-,

14   -S(O)$_n$-, -N(R$_a$)-, -C(O)-, -C(O)O-, -SO$_2$N(R$_a$)-, -CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-,

15   -N(R$_a$)N(R$_b$)-, -N(R$_a$)SO$_2$N(R$_b$)-, -N(R$_a$)SO$_2$-, -N(R$_a$)-O-, =N-O-, lower alkylene,

16   -O-lower alkylene, -S(O)$_n$-lower alkylene, N(R$_a$)-lower alkylene, -SO$_2$N(R$_a$)-lower

17   alkylene, lower alkylene-SO$_2$N(R$_a$)-, -CON(R$_a$)-lower alkylene, lower

18   alkylene-CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-lower alkylene, lower alkylene-N(R$_a$)N(R$_b$)-,

19   -N(R$_a$)SO$_2$N(R$_b$)-lower alkylene, -N(R$_a$)-O-lower alkylene, lower alkylene-N(R$_a$)-O-,

20   =N-O-lower alkylene, lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower

21   heteroalkylene, N(R$_a$)-lower heteroalkylene, -SO$_2$N(R$_a$)-lower heteroalkylene, lower

22   heteroalkylene-SO$_2$N(R$_a$)-, -CON(R$_a$)-lower heteroalkylene, lower

23   heteroalkylene-CON(R$_a$)-, -N(R$_a$)CON(R$_b$)-lower heteroalkylene, lower

24   heteroalkylene-N(R$_a$)N(R$_b$)-, -N(R$_a$)SO$_2$N(R$_b$)-lower heteroalkylene, -N(R$_a$)-O-lower

25   heteroalkylene, lower heteroalkylene-N(R$_a$)-O-, =N-O-lower alkylene and heteroaryl;

26   X^2 is a member selected from the group consisting of substituted or

27   unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted

28   cycloalkyl, and substituted or unsubstituted heterocycloalkyl;

29   L^2 is a divalent linking group selected from the group consisting of

30   -CH$_2$CH$_2$-, -(C(R$_c$)=C(R$_d$))$_m$-, -O-, -S(O)$_n$-, -N(R$_e$)-, -C(O)-, -C(O)O-, -SO$_2$N(R$_e$)-,

31   -CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-, -N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-, -N(R$_e$)-O-, =N-O-, lower

32   alkylene, perfluoro lower alkylene, polyfluoro lower alkylene, -O-lower alkylene,

33   -S(O)$_n$-lower alkylene, N(R$_e$)-lower alkylene, -SO$_2$N(R$_e$)-lower alkylene, lower

34   alkylene-SO$_2$N(R$_e$)-, -CON(R$_e$)-lower alkylene, lower alkylene-CON(R$_e$)-,

35   -N(R$_e$)CON(R$_f$)-lower alkylene, lower alkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

36   alkylene, -N(R$_e$)-O-lower alkylene, lower alkylene-N(R$_e$)-O-, =N-O-lower alkylene,

37   lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower heteroalkylene, N(R$_e$)-lower

38   heteroalkylene, -SO$_2$N(R$_e$)-lower heteroalkylene, lower heteroalkylene-SO$_2$N(R$_e$)-,

39   -CON(R$_e$)-lower heteroalkylene, lower heteroalkylene-CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-lower

40   heteroalkylene, lower heteroalkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

41   heteroalkylene, -N(R$_e$)-O-lower heteroalkylene, lower heteroalkylene-N(R$_e$)-O-,

42   =N-O-lower alkylene, aryl and heteroaryl;

51

43   wherein R_a, R_b, R_c, R_d, R_e and R_f are each members independently selected

44   from the group consisting of H, lower alkyl, lower heteroalkyl, -C(O)-lower alkyl,

45   -C(O)-lower heteroalkyl, $-S(O)_2$-lower alkyl, and $-S(O)_2$-lower heteroalkyl;

46   the subscript n is an integer of from 0 to 2;

47   the subscript m is an integer of from 0 to 3;

48   the bond between X^2 and A can be a single, double or triple bond,

49   depending on the nature of X^2 and A; and

50   wherein when L^1 and L^2 may be linked together *via* a single bond, -O-, -S-

51   or amide group to form a new 5 to 7 membered ring.

1   **27.**   A compound in accordance with claim **26**, wherein X^2 is selected

2   from the group consisting of a 5 to 7 membered cycloalkyl ring, a 5 to 7 membered

3   heterocycloalkyl ring containing from 1 to 3 heteroatoms, an aryl group and a heteroaryl

4   group; A is selected from the group consisting of an sp^2-hybridized carbon atom and an

5   sp^3-hybridized carbon atom; L^2 is a single bond; and X^2 and A are joined *via* a single or

6   double bond.

1   **28.**   A compound in accordance with claim **27**, wherein $-X^2$-A- is

2   selected from the group consisting of:

$[X^2\text{-}A]_a$ $[X^2\text{-}A]_b$ $[X^2\text{-}A]_c$

$[X^2\text{-}A]_d$ and $[X^2\text{-}A]_e$

3

4   wherein R_g is selected from the group consisting of H, lower alkyl, lower

5   alkoxy and F;

6   R_h is selected from the group consisting of H, $-S(O)_n$-lower alkyl, $-S(O)_n$-

7   lower heteroalkyl, $-S(O)_n$-aryl and $-S(O)_n$-heteroaryl; W is CH or N; Hal is a halogen

8   atom; and X^2 is a substituted or unsubstituted member selected from the group consisting

9   of a 5-6 membered cycloalkyl, 5-6 membered heterocycloalkyl containing from 1 to 3

10   heteroatoms, heteroaryl containing from 1 to 3 heteroatoms and aryl.

1   **29.**   A compound having the formula (**II**):

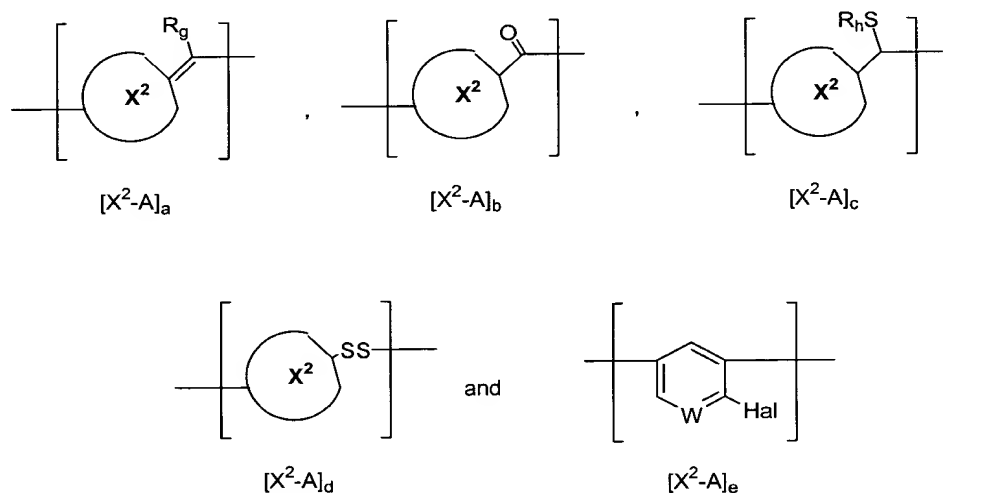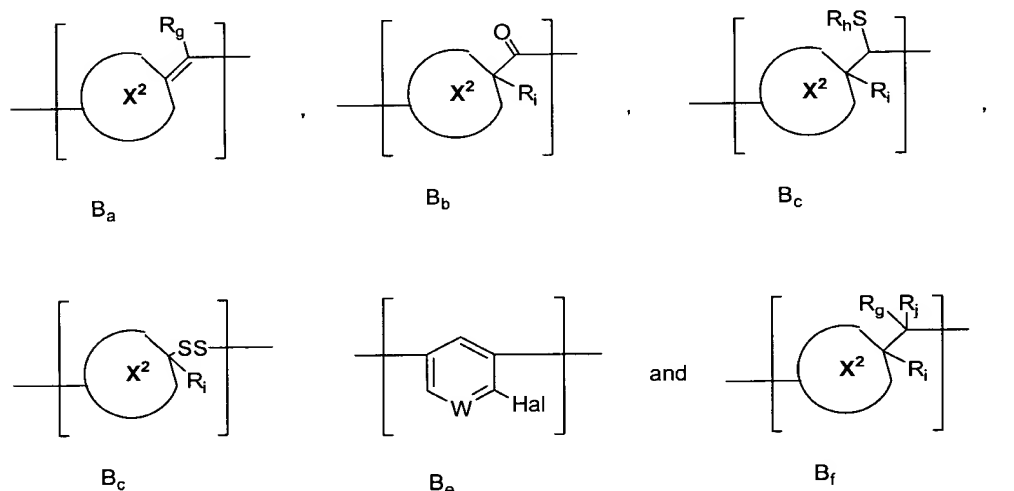2 X^1-L^1-B-L^2-Ar^1

3   wherein

4   Ar^1 is a member selected from the group consisting of substituted or

5   unsubstituted aryl and substituted or unsubstituted heteroaryl;

6   X^1 is a member selected from the group consisting of -H, substituted or

7   unsubstituted alkyl, substituted or unsubstituted aryl, substituted or unsubstituted

8   heteroaryl, -CN, -CO_2H, -SO_3H, -C(O)NHOH, -NH_2, -OH, -NH(lower alkyl), -O(lower

9   alkyl), -N(lower alkyl)$_2$, and –C(O)-NH(3-tetrazolyl);

10   L^1 is a divalent linking group selected from the group consisting of -O-,

11   -$S(O)_n$-, -$N(R_a)$-, -C(O)-, -C(O)O-, -$SO_2N(R_a)$-, -$CON(R_a)$-, -$N(R_a)CON(R_b)$-,

12   -$N(R_a)N(R_b)$-, -$N(R_a)SO_2N(R_b)$-, -$N(R_a)SO_2$-, -$N(R_a)$-O-, =N-O-, lower alkylene,

13   -O-lower alkylene, -$S(O)_n$-lower alkylene, $N(R_a)$-lower alkylene, -$SO_2N(R_a)$-lower

14   alkylene, lower alkylene-$SO_2N(R_a)$-, -$CON(R_a)$-lower alkylene, lower

15   alkylene-$CON(R_a)$-, -$N(R_a)CON(R_b)$-lower alkylene, lower alkylene-$N(R_a)N(R_b)$-,

16   -$N(R_a)SO_2N(R_b)$-lower alkylene, -$N(R_a)$-O-lower alkylene, lower alkylene-$N(R_a)$-O-,

17   =N-O-lower alkylene, lower heteroalkylene, -O-lower heteroalkylene, -$S(O)_n$-lower

18   heteroalkylene, $N(R_a)$-lower heteroalkylene, -$SO_2N(R_a)$-lower heteroalkylene, lower

19   heteroalkylene-$SO_2N(R_a)$-, -$CON(R_a)$-lower heteroalkylene, lower

20   heteroalkylene-$CON(R_a)$-, -$N(R_a)CON(R_b)$-lower heteroalkylene, lower

21   heteroalkylene-$N(R_a)N(R_b)$-, -$N(R_a)SO_2N(R_b)$-lower heteroalkylene, -$N(R_a)$-O-lower

22   heteroalkylene, lower heteroalkylene-$N(R_a)$-O-, =N-O-lower alkylene and heteroaryl;

23   L^2 is a divalent linking group selected from the group consisting of

24   -CH_2CH_2-, -$(C(R_c)=C(R_d))_m$-, -O-, -$S(O)_n$-, -$N(R_e)$-, -C(O)-, -C(O)O-, -$SO_2N(R_e)$-,

25   -$CON(R_e)$-, -$N(R_e)CON(R_f)$-, -$N(R_e)N(R_f)$-, -$N(R_e)SO_2N(R_f)$-, -$N(R_e)$-O-, =N-O-, lower

26   alkylene, perfluoro lower alkylene, polyfluoro lower alkylene, -O-lower alkylene,

27   -$S(O)_n$-lower alkylene, $N(R_e)$-lower alkylene, -$SO_2N(R_e)$-lower alkylene, lower

28   alkylene-$SO_2N(R_e)$-, -$CON(R_e)$-lower alkylene, lower alkylene-$CON(R_e)$-,

29   -$N(R_e)CON(R_f)$-lower alkylene, lower alkylene-$N(R_e)N(R_f)$-, -$N(R_e)SO_2N(R_f)$-lower

30   alkylene, -$N(R_e)$-O-lower alkylene, lower alkylene-$N(R_e)$-O-, =N-O-lower alkylene,

53

31 lower heteroalkylene, -O-lower heteroalkylene, -S(O)$_n$-lower heteroalkylene, N(R$_e$)-lower

32 heteroalkylene, -SO$_2$N(R$_e$)-lower heteroalkylene, lower heteroalkylene-SO$_2$N(R$_e$)-,

33 -CON(R$_e$)-lower heteroalkylene, lower heteroalkylene-CON(R$_e$)-, -N(R$_e$)CON(R$_f$)-lower

34 heteroalkylene, lower heteroalkylene-N(R$_e$)N(R$_f$)-, -N(R$_e$)SO$_2$N(R$_f$)-lower

35 heteroalkylene, -N(R$_e$)-O-lower heteroalkylene, lower heteroalkylene-N(R$_e$)-O-,

36 =N-O-lower alkylene, aryl and heteroaryl;

37   wherein R$_a$, R$_b$, R$_c$, R$_d$, R$_e$ and R$_f$ are each members independently selected

38 from the group consisting of H, lower alkyl, lower heteroalkyl, -C(O)-lower alkyl,

39 -C(O)-lower heteroalkyl, –S(O)$_2$-lower alkyl, and –S(O)$_2$-lower heteroalkyl;

40   the subscript n is an integer of from 0 to 2;

41   the subscript m is an integer of from 0 to 3;

42   B is selected from the group consisting of:

B$_a$, B$_b$, B$_c$

B$_c$ B$_e$ and   B$_f$;

43

44 wherein

45   X^2 is a substituted or unsubstituted member selected from the group

46 consisting of a 5-6 membered cycloalkyl, 5-6 membered heterocycloalkyl containing

47 from 1 to 3 heteroatoms, heteroaryl containing from 1 to 3 heteroatoms and aryl;

48   W is CH or N;

49   R$_g$ is selected from the group consisting of H, lower alkyl, lower alkoxy

50 and F;

51   R$_h$ is selected from the group consisting of H, -S(O)$_n$-lower alkyl, -S(O)$_n$-

52 lower heteroalkyl, -S(O)$_n$-aryl and -S(O)$_n$-heteroaryl;

53   R$_i$ is selected from the group consisting of H, lower alkyl, lower

54 heteroalkyl, or a bond that links the atom bearing R$_i$ with another atom in the X^2 ring;

54

55   R_j is selected from the group consisting of H, lower alkyl, F and lower

56   alkoxy; and

57   Hal is a halogen atom;

58   wherein when L^1 and L^2 may be linked together *via* a single bond, -O-, -S-

59   or amide group to form a new 5 to 7 membered ring.

1   **30.**   A compound in accordance with claim **29**, wherein B is selected
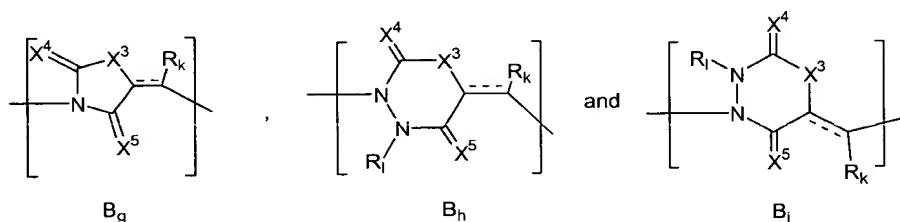
2   from the group consisting of:

B_g B_h B_i

3
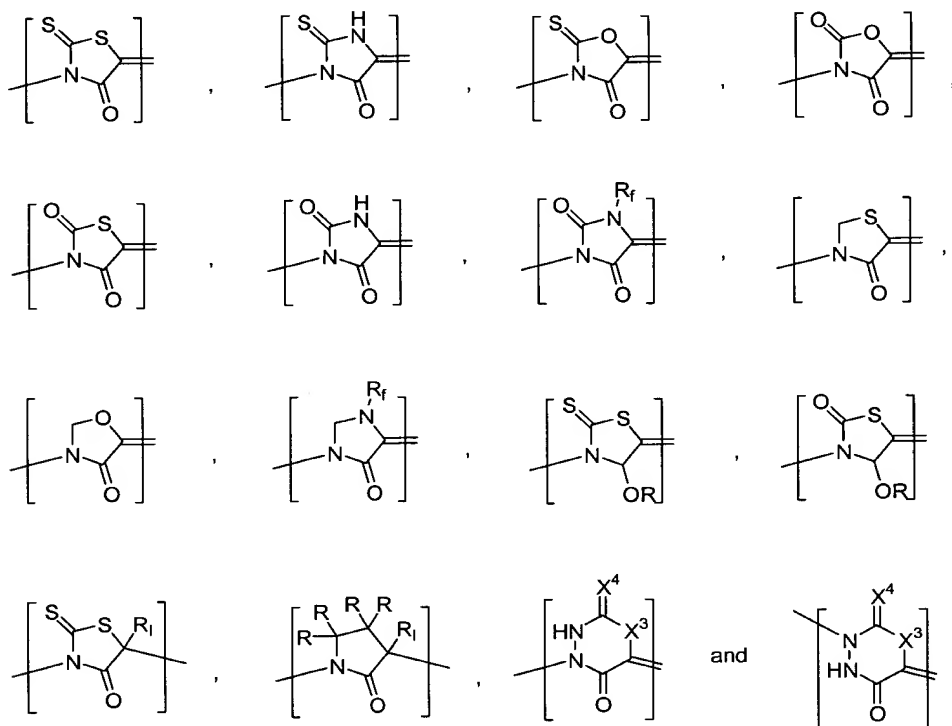
4   wherein

5   R_k is selected from the group consisting of H, lower alkyl, lower

6   heteroalkyl and F;

7   R_l is H or lower alkyl;

8   X^3 is selected from the group consisting of O, S, CH_2, CH(lower alkyl),

9   C(lower alkyl)$_2$, NH and N(lower alkyl);

10   X^4 is selected from the group consisting of O, S, NH and N(lower alkyl),

11   or X^4 and the carbon atom to which it is attached represents an sp^3-hybridized carbon

12   having two substituents independently selected from the group consisting of H, lower

13   alkyl and lower heteroalkyl; and

14   X^5 is selected from the group consisting of O, S, NH and N(lower alkyl),

15   or X^5 and the carbon atom to which it is attached represents an sp^3-hybridized carbon

16   having two substituents independently selected from the group consisting of H, lower

17   alkyl, lower alkoxy, aryloxy, lower thioalkoxy and arylthioxy; and _ _ _ represents either

18   a single or double bond, with the proviso that when a single bond is intended, the ring

19   atom bearing said single bond bears an additional substituent selected from the group

20   consisting of H, lower alkyl, lower alkoxy and F.

1   **31.**   A compound of claim **30**, wherein B is selected from the group

2   consisting of:

55

B_j   and   B_k

3
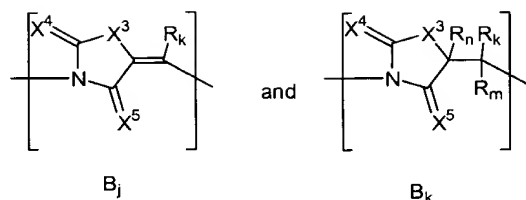
4   wherein R_k, R_m and R_n are each independently selected from the group consisting of H, F,

5   lower alkyl and lower alkoxy; X^3 is selected from the group consisting of O, S, C(lower

6   alkyl)$_2$, NH and N(lower alkyl); X^4 is selected from the group consisting of O, S, or X^4

7   and the carbon atom to which it is attached represents an sp^3-hybridized carbon having

8   two substituents independently selected from the group consisting of H, lower alkyl and

9   lower heteroalkyl; X^5 is selected from the group consisting of O, S, or X^5 and the carbon

10   atom to which it is attached represents an sp^3-hybridized carbon having two substituents

11   independently selected from the group consisting of H, lower alkoxy and lower

12   thioalkoxy.

1   **32.**   A compound of claim **31**, wherein B is selected from the group

2   consisting of:

3

4   wherein any unlabeled R groups are independently selected from the group consisting of

5   H, lower alkyl, lower alkoxy and F.

56

1   **33.**   A compound of claim **29**, wherein B is selected from the group

2   consisting of:

3   B_l B_m and B_n .
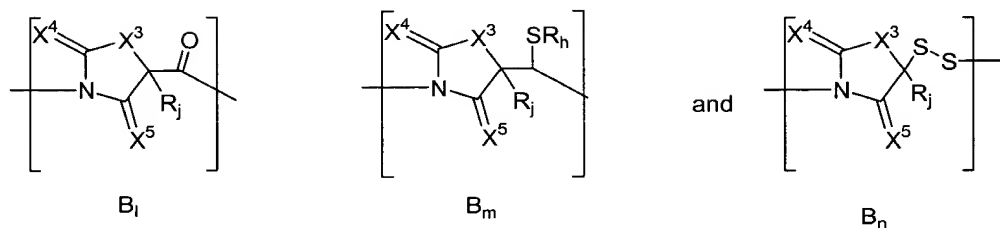
1   **34.**   A compound of claim **29** wherein L^1 is selected from the group

2   consisting of $-N(R_a)-$, $-N(R_a)$-alkylene, alkylene-SO_2-$N(R_a)$-, $-SO_2$-$N(R_a)$- and

3    $-N(R_a)SO_2$-; and X^1 is selected from the group consisting of H, aryl and alkyl.
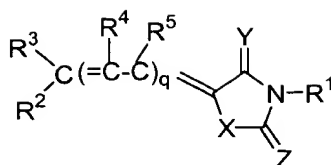
1   **35.**   A compound of claim **29**, wherein Ar^1 is selected from the group

2   consisting of substituted or unsubstituted biphenyl group, substituted or unsubstituted

3   bicyclic ring, substituted or unsubstituted phenyl group and substituted or unsubstituted

4   pyridyl.

1   **36.**   A compound of claim **34**, said compound having the formula:
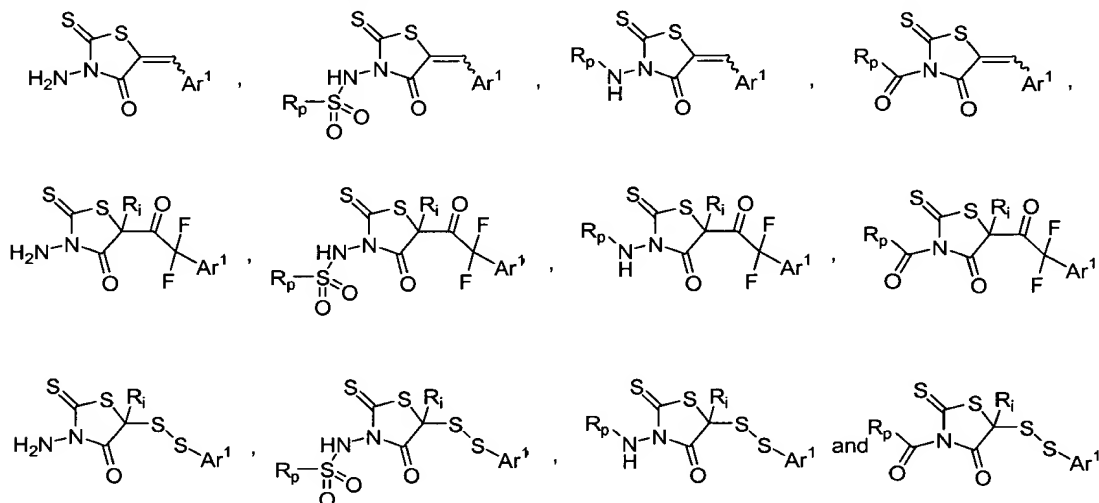
2

3   wherein R_p is a member selected from the group consisting of substituted or unsubstituted

4   alkyl, substituted or unsubstituted aryl and substituted or unsubstituted heteroaryl.

1

2   **37.**   A compound of Claim **29**, said compound having the formula (**III**):

57

$$R^3 \underset{R^2}{\overset{R^3}{\diagdown}} C(=\overset{R^4}{C}-\overset{R^5}{C})_q = \overset{Y}{\diagdown} \underset{X}{\overset{}{\diagup}} N-R^1 \ , \ Z$$

3

4 wherein

5   the subscript q is an integer of from 0 to 4;

6   R^1 is hydrogen or a substituent having the formula $-L^1$-COOH;

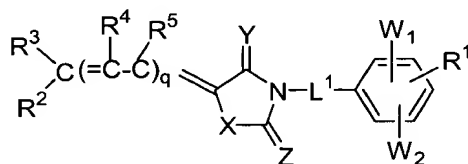7   X is a moiety selected from -S-, -O-, and -N(R_o)- , wherein R_o is H or

8 lower alkyl;

9   R^2 is a substituted or unsubstituted aryl(C_1-C_8)alkyl, a substituted or

10 unsubstituted aryl(C_1-C_8)alkenyl, a substituted or unsubstituted aryl(C_1-C_8)alkynyl, a

11 substituted or unsubstituted alicyclic group having from 5-8 carbon atoms, or a group

12 having the formula $(R_{2a})_r$-$(L)_s$-R_{2b}-, wherein R_{2a} and R_{2b} can be the same or different and

13 represent a substituted or unsubstituted heterocyclic group or a substituted or

14 unsubstituted phenyl group, R_{2a} can also represent a substituted or unsubstituted

15 polycyclic group, and L represents a divalent linking group selected from methylene,

16 ethylene, propylene, -CH=CH-, -C≡C-, -C(O)-, -O-, -S-, -S(O)-, -S(O)$_2$-, or $-N(R_{2c})$-,

17 wherein R_{2c} is selected from H or lower alkyl, and the subscripts r and s are each

18 independently 0 or 1;

19   Y represents O or S; and

20   Z represents O, S or N(R_{2d}), wherein R_{2d} is H or lower alkyl, or R_{2d} and R^1

21 may be joined to form an imidazole or benzimidazole group;

22 with the proviso that when R^1 is hydrogen R^2 is not substituted or unsubstituted furan.

1   **38.**   A compound of Claim **29**, said compound having the formula (**V**):

$$R^3 \underset{R^2}{\overset{R^3}{\diagdown}} C(=\overset{R^4}{C}-\overset{R^5}{C})_q = \overset{Y}{\diagdown} \underset{X}{\overset{}{\diagup}} N-L^1 \underset{W_2}{\overset{W_1}{\diagdown}} R^1 \ , \ Z$$

2

3 wherein

4   R^1 is H, -OH, -COOR$_u$, -CONR$_v$R$_w$, -SO$_2$NR$_x$R$_y$ wherein R$_u$, R$_v$, R$_w$, R$_x$

5 and R$_y$ are H or lower alkyl, or R^1 is a mono-heterocyclic group selected from furan,

6 thiophene, pyridine, pyrimidine, pyridazine, 1,3-oxathiolane, tetrazole, oxadiazole,

7 oxazole, triazole, imidazoline, imidazole, thiazole, thiadiazole, pyrrole, piperidine,

8 morpholine, triazine and pyrazole; and

58

9   W_1 and W_2 are independently selected from H, (C_1-C_8)alkyl, $(C_1-$

10    $C_8)$alkenyl, (C_1-C_8)alkynyl, halogen, nitro, hydroxy, perfluoroalkyl, difluoromethyl, $(C_1-$

11    $C_8)$alkoxy, phenoxy, phenyl(C_1-C_8)alkoxy, (C_1-C_8)acyl, (C_1-C_8)acyloxy, cyano,

12   carbalkoxy, thio, (C_1-C_8)alkylthio, (C_1-C_8)alkylsulfinyl, (C_1-C_8)alkylsulfonyl, amino, $(C_1-$

13    $C_8)$alkylamino, di(C_1-C_8)alkylamino, sulfonamido, carboxamido and $(C_1-$

14 $C_8)$alkanoylamino.

1   **39.**   A compound of Claim **29**, said compound having a formula

2   selected from the group consisting of

3

4   wherein

5   R^2 is a substituted or unsubstituted mono- or bi-heterocyclic group, a

6   substituted or unsubstituted polycyclic ring, a substituted or unsubstituted alicyclic group

7   having 5-8 carbon atoms, a substituted or unsubstituted phenyl group, a substituted or

8   unsubstituted biphenyl group, a substituted or unsubstituted phenylether group, a

9   substituted or unsubstituted cinnamenyl group, or a substituted or unsubstituted stilbenyl

10   group.

1   **40.**   A compound having the formula:
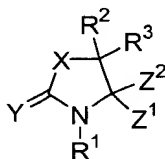
2

3   wherein

4   X is a member selected from the group consisting of O, S, NR^{11} and

5    $CR^{11}R^{12}$ wherein R^{11} and R^{12} are each members independently selected from the group

6   consisting of H, substituted or unsubstituted (C_1-C_8)alkyl, substituted or unsubstituted

7   (C_1-C_8)alkoxy and substituted or unsubstituted (C_1-C_8)acyl;

8   Y is a member selected from the group consisting of O and S, or taken

9   together with the carbon atom to which it is attached forms a methylene group;

10   Z^1 and Z^2 are each members independently selected from the group

11   consisting of H and substituted or unsubstituted (C_1-C_8)alkoxy, or taken together form an

12   oxo moiety;

59

13   R^1 is a member selected from the group consisting of substituted or

14   unsubstituted $(C_1\text{-}C_8)$alkyl, substituted or unsubstituted $(C_1\text{-}C_8)$alkylamino, substituted or

15   unsubstituted di$(C_1\text{-}C_8)$alkylamino, substituted or unsubstituted $(C_1\text{-}C_8)$acylamino, amino,

16   H, substituted or unsubstituted aryl$(C_1\text{-}C_8)$alkyl, substituted or unsubstituted

17   heteroaryl$(C_1\text{-}C_8)$alkyl, substituted or unsubstituted heterocycloalkyl and -$NHSO_2\text{-}Ar^1$,

18   wherein Ar^1 is selected from the group consisting of substituted or unsubstituted aryl and

19   substituted or unsubstituted heteroaryl; and

20   R^2 and R^3 are each members independently selected from the group

21   consisting of halo, substituted or unsubstituted $(C_1\text{-}C_8)$alkyl and substituted or

22   unsubstituted $(C_1\text{-}C_8)$acyl, or taken together form a group of the formula:

$$\overset{R^4}{\underset{R^5}{\diagup}}$$
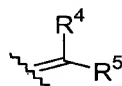
23

24   wherein R^4 and R^5 are each members independently selected from the

25   group consisting of H, substituted or unsubstituted aryl, and substituted or unsubstituted

26   heteroaryl, with the proviso that no more than one of R^4 and R^5 are H;

27   with the proviso that when Z^1 and Z^2 taken together form an oxo moiety and R^2 and R^3

28   taken together form a group of the formula:

$$\overset{R^4}{\underset{R^5}{\diagup}}$$
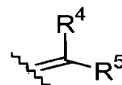
29

30   R^1 is not substituted or unsubstituted $(C_1\text{-}C_8)$alkyl or H

1   **41.**   A compound in accordance with claim **40**, wherein R^1 is selected

2   from the group consisting of amino and substituted or unsubstituted -$NHSO_2\text{-}Ar^1$.

1   **42.**   A compound in accordance with claim **40**, wherein Z^1 and Z^2 taken

2   together are oxo.

1   **43.**   A compound in accordance with claim **40**, wherein Y is O or S and

2   Z^1 and Z^2 taken together are oxo.

1   **44.**   A compound in accordance with claim **40**, wherein X and Y are S

2   and Z^1 and Z^2 taken together are oxo.

1   **45.**   A compound in accordance with claim **40**, wherein R^1 is selected

2   from the group consisting of substituted or unsubstituted $(C_1\text{-}C_8)$alkylamino, substituted

3   or unsubstituted di(C_1-C_8)alkylamino, substituted or unsubstituted (C_1-C_8)acylamino,

4   amino, and -$NHSO_2$-Ar^1, wherein Ar^1 is selected from the group consisting of substituted

5   or unsubstituted aryl and substituted or unsubstituted heteroaryl; X and Y are each

6   independently selected from the group consisting of O and S; Z^1 and Z^2 taken together are

7   oxo; and R^2 and R^3 taken together are a group having the formula:

$$\begin{array}{c} R^4 \\ \diagup\hspace{-0.5em}\diagdown \\ \hspace{-1em}R^5 \end{array}$$
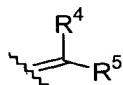
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9   wherein R^4 and R^5 are each members independently selected from the

10   group consisting of H, substituted or unsubstituted aryl, and substituted or unsubstituted

11   heteroaryl, with the proviso that only one of R^4 and R^5 is H.

46. A pharmaceutical composition, comprising a pharmaceutically

acceptable carrier and a therapeutically or prophylactically effective amount of a

compound of any one of claims **1, 9, 12, 24, 26, 29** and **40**.

1   **47.** A method for the treatment or prevention of a viral infection,

2   comprising

3   administering to a subject suffering from or at risk for said viral infection

4   an effective amount of a compound of any one of claims **1, 9, 12, 24, 26, 29** and **40**.

1   **48.** The method of Claim **47**, wherein said viral infection is hepatitis C

2   virus infection.

1   **49.** The method of Claim **47**, wherein said compound is administered

2   in combination with a therapeutically effective amount of an antiviral agent.

1   **50.** The method of Claim **49**, wherein said antiviral agent is an

2   interferon.

1   **51.** A method for treating or preventing a viral infection, comprising

2   administering to a subject in need thereof a therapeutically effective

3   amount of a compound that binds to a cysteine residue in the RNA-dependent RNA

4   polymerase (RdRp) protein of a virus forming a covalent bond.

1   **52.** The method of Claim **51**, wherein said RdRp protein is NS5B.

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1   **53.**   The method of Claim **51,** wherein said viral infection is hepatitis C

2   virus infection.

1   **54.**   The method of Claim **51**, wherein said compound comprises an

2   electrophilic group that reacts with a cysteine residue of said RdRp protein.

1   **55.**   The method of Claim **54**, wherein said electrophilic group is

2   selected from the group consisting of an activated double or triple bond, an electrophilic

3   center, a carboxylic acid or carboxylic acid derivative, a sulfur-containing group and an

4   activated or unactivated carbonyl group.